

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. Contract ID Code Cost-Plus-Fixed-Fee		Page 1 Of 10	
2. Amendment/Modification No. P00001		3. Effective Date 2007JUL02		4. Requisition/Purchase Req No. SEE SCHEDULE		5. Project No. (If applicable)	
6. Issued By U.S. ARMY TACOM LCMC AMSTA-AQ-ABGD DAVID E. MCCRIGHT (586)574-7625 WARREN, MICHIGAN 48397-5000 HTTP://CONTRACTING.TACOM.ARMY.MIL WEAPON SYSTEM: WPN SYS: 00 EMAIL: DAVID.MCCRIGHT@US.ARMY.MIL		Code W56HZV		7. Administered By (If other than Item 6) DCMA DAYTON AREA C, BUILDING 30 1725 VAN PATTON AVENUE WRIGHT PATTERSON AFB, OH 45433-5302		Code S3605A	
				SCD C PAS NONE ADP PT HQ0337			
8. Name And Address Of Contractor (No., Street, City, County, State and Zip Code) ASHLAND INC DBA: VALVOLINE 50 E RIVERCENTER BLVD COVINGTON, KY 41011-1683 TYPE BUSINESS: Large Business Performing in U.S.				<input type="checkbox"/>		9A. Amendment Of Solicitation No.	
				<input type="checkbox"/>		9B. Dated (See Item 11)	
				<input checked="" type="checkbox"/>		10A. Modification Of Contract/Order No. W56HZV-07-C-0211	
				<input type="checkbox"/>		10B. Dated (See Item 13) 2007APR24	
Code 4NK87		Facility Code					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendments: (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. Accounting And Appropriation Data (If required) ACRN: AB NET INCREASE: \$850,451.00							
13. THIS ITEM ONLY APPLIES TO MODIFICATIONS OF CONTRACTS/ORDERS							
KIND MOD CODE: G It Modifies The Contract/Order No. As Described In Item 14.							
<input type="checkbox"/>		A. This Change Order is Issued Pursuant To: The Contract/Order No. In Item 10A.			The Changes Set Forth In Item 14 Are Made In		
<input type="checkbox"/>		B. The Above Numbered Contract/Order Is Modified To Reflect The Administrative Changes (such as changes in paying office, appropriation data, etc.) Set Forth In Item 14, Pursuant To The Authority of FAR 43.103(b).					
<input checked="" type="checkbox"/>		C. This Supplemental Agreement Is Entered Into Pursuant To Authority Of: mutual agreement of the parties					
<input type="checkbox"/>		D. Other (Specify type of modification and authority)					
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return _____ copies to the Issuing Office.							
14. Description Of Amendment/Modification (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) SEE SECOND PAGE FOR DESCRIPTION							

Except as provided herein, all terms and conditions of the document referenced in item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. Name And Title Of Signer (Type or print)		16A. Name And Title Of Contracting Officer (Type or print) MICHAEL L. CIONI MICHAEL.CIONI@US.ARMY.MIL (586)574-7070	
15B. Contractor/Offeror _____ (Signature of person authorized to sign)	15C. Date Signed	16B. United States Of America By _____ /SIGNED/ (Signature of Contracting Officer)	16C. Date Signed 2007JUL02

NSN 7540-01-152-8070

PREVIOUS EDITIONS UNUSABLE

30-105-02

STANDARD FORM 30 (REV. 10-83)

Prescribed by GSA FAR (48 CFR) 53.243

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SECTION A - SUPPLEMENTAL INFORMATION
NANOPARTICLE AND NANOFLUID RESEARCH & DEVELOPMENT

PREVIOUS NEGOTIATED CONTRACT VALUE:	\$ 833,543.00
NEGOTIATED VALUE THIS ACTION:	\$ 850,451.00
TOTAL NEGOTIATED CONTRACT VALUE:	\$1,683,994.00
PREVIOUS OBLIGATED CONTRACT AMOUNT:	\$ 833,543.00
OBLIGATED AMOUNT THIS ACTION:	\$ 850,451.00
TOTAL OBLIGATED CONTRACT AMOUNT:	\$1,683,994.00

- The purpose of this bilateral Modification P00001 to Contract W56HZV-07-C-0211 is to add additional SOW for testing, and provide additional funding.
- The additional SOW is added in Section C.
- The parties, the Government and Valvoline, Inc., negotiated and agreed on an amount of estimated costs and fixed fee to fund the additional SOW for the second year Effort. The amount is as follows:

Estimated Cost:	\$809,953.00
Fixed Fee:	\$ 40,498.00
Total:	\$850,451.00

- The contract is modified as follows:
 - CLIN 0001 is increased by \$850,451.00 from \$833,543.00 for a new estimated total of \$1,683,994.00. As a result, the estimated cost increased by \$809,953.00 from \$793,850.00 to a new estimated total cost of \$1,603,803.00. As a result, the fixed fee increased by \$40,498.00 from \$39,693.00 to a new fixed fee total of \$80,191.00.
 - SubCLIN 0001AB is established to fund Mod P00001 in the amount of \$850,451.00.
 - Section C: Section C is modified to describe the additions to the SOW.
 - Section F is modified to provide for the delivery of prototype formulations at contract completion.
 - Section G is modified to change and update the accounting data.
 - The DD Form 1423, Contract Data Requirements List is changed to reflect the addition of the Test Report (CDRL A0005).
- All other terms and conditions remained unchanged and in full effect.

Name of Offeror or Contractor: ASHLAND INC

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	<p>SECTION B - SUPPLIES OR SERVICES AND PRICES/COSTS</p> <p><u>NANOPARTICLES RESEARCH & DEVELOPMENT</u></p> <p>NOUN: SERVICES LINE ITEM SECURITY CLASS: Unclassified</p> <p>Contractor shall furnish all the supplies and services to accomplish the task specified in Section C Scope of Work.</p> <p>Est. Cost: \$1,603,803.00 Fixed Fee: 80,191.00 Total Amount: \$1,683,994.00</p> <p>(End of narrative B002)</p>		LO		
0001AB	<p><u>NANOPARTICLES RESEARCH & DEVELOPMENT</u></p> <p>NOUN: SERVICES LINE ITEM PRON: R372C222R3 PRON AMD: 01 ACRN: AB AMS CD: 622601T2600</p> <p>Contractor shall furnish all the supplies and services to accomplish the task specified in Section C Scope of Work.</p> <p>(End of narrative B001)</p> <p><u>Inspection and Acceptance</u> INSPECTION: Destination ACCEPTANCE: Destination</p> <p><u>Deliveries or Performance</u> DLVR SCH PERFORM COMPL REL CD QUANTITY DATE 001 0 SEE SECTION F</p> <p>\$ 850,451.00</p>		LO		\$ 850,451.00

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SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

Scope of Work

C.1 SCOPE. This Statement of Work (SOW) defines the research effort required to identify, characterize, synthesize, and evaluate nanoparticles for use in military engine oils. Additionally, this effort will research and evaluate the dispersion method necessary to suspend the nanoparticles in oil.

C.1.1 Background. The nanoparticle program has been initiated in response to a Science and Technology need to improve military Petroleum, Oil, & Lubricants (POL) products. The nanoparticles will be researched to determine if and how nanoparticles can be added to fully-formulated military POL products (i.e. engine oil). The addition of nanoparticles to POL products is anticipated to improve a number of properties; for example increase thermal conductivity and heat transfer properties for better overall heat management and reduced peak operating temperatures, while reducing friction and wear, and enhancing fluid film protection. Fully formulated POL products with nanoparticles could ultimately contribute to make improvements in fuel efficiency, reducing the size of the cooling system (i.e., radiator) thus aiding in vehicle weight reductions and further helping to make vehicles more fuel efficient.

C.2 APPLICABLE DOCUMENTS. The following documents are applicable to this Statement of Work and attached appendices to the extent specified herein.

Department of Defense Specifications.
MIL-PRF-2104 Lubricating Oil, Internal Combustion Engine, Combat/Tactical Service
MIL-PRF-46167 Lubricating Oil, Internal Combustion Engine, Arctic

C.3 REQUIREMENTS.

C.3.1 General. The contractor, acting as an independent contractor and not as an agent of the Government, shall provide the necessary personnel, facilities, materials, and services to complete the effort described herein. The overall project is envisioned to encompass a period of 12 months. The work required by this contract shall be performed in accordance with Statement of Work.

The contractor shall research, select, and characterize specific nanoparticles, select and demonstrate the best method to disperse the nanoparticles in oil, and develop a nanoparticle concentrate to treat an engine oil with nanoparticles to demonstrate whether nanoparticles can improve performance in the areas of reduced friction, thermal stability and fuel consumption. The tasks involved are listed below in 3.2.

C.3.2 Detail Tasks.

C.3.2.1 Design, Engineering, Formulation and Test.

C.3.2.1.1 Selection, Synthesis, and Characterization of Nanoparticles. The contractor shall select and characterize up to three different nanoparticles to achieve increased heat transfer and/or reduce friction and wear.

C.3.2.1.1.1 Contractor shall create an index of all previously evaluated nanoparticles and summary of findings. This index shall be delivered not later than (NLT) 90 days after contract award (see DD 1423 Contract Data Requirements List (CDRL) A002.

C.3.2.1.1.2 Contractor shall identify the nanoparticles selected for this work and why they were chosen. This report shall be delivered NLT 90 days after contract award (see CDRL A002). Final selection of candidate nanoparticles shall be with the concurrence and approval of the Contracting Officers Representative (COR).

C.3.2.1.1.3 Contractor shall characterize the selected nanoparticles for chemical and physical properties before and after it has been blended with the lubricants.

C.3.2.1.2 Dispersant System Development. The contractor shall develop a particle concentrate dispersion system. The concentrates shall be tested for stability as a function of temperature and time, and diluted to evaluate their complete rheology in a reference lubricant selected with TARDEC.

C.3.2.1.2.1 The contractor shall provide an index of dispersion systems developed for the specific nanoparticles chosen in Section C.3.2.1.1. This index shall be delivered NLT 90 days after contract award or as agreed upon with the COR (see CDRL A002).

C.3.2.1.3 Formulation of prototype oils. The contractor shall formulate a prototype nanoparticle system which shall be blended

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into an agreed upon, or as specified by the COR, engine oil. The contractor shall evaluate the resulting oil to include but not limited to property characterizations, stability and shelf life, and environmental risks and impacts. A 1 gallon sample of the resulting oil and 1 pint of the nanoparticle concentrate shall be provided to TARDEC for evaluation. The contractor shall formulate the resulting oil for high temperature (140\°b0F ambient) and high loads.		
* C.3.2.1.3.1 The contractor shall continue to explore stability of developed nanofluid formulations, on nanoparticles selected from previous work, to include nanoparticle dispersion systems and base fluid formulations. Adjustments to the base oil formulations shall be made, if needed, in order to incorporate the nanoparticle systems.		
*C.3.2.1.3.2 Contractor shall create a test plan to outline the methods to evaluate the stability of the nanofluid formulations and fully formulated engine oils with nanoparticles. This test plan shall be delivered not later than (NLT) 90 days after the effective date of this Modification (see DD 1423 Contract Data Requirements List (CDRL) A003.		
* C.3.2.1.4 Engine testing of Arctic-to-Desert Engine Oil Base Formulation. The contractor shall conduct engine performance testing designed and optimized for operation at ambient temperatures in the range between -50\°b0C (-60\°b0F) and 60\°b0C (140\°b0F).		
*C.3.2.1.4.1 The contractor shall provide and discuss with TARDEC parameters and conditions for verifying engine performance at the ambient temperatures listed above.		
* C.3.2.1.4.2 The contractor shall provide a test plan for the engine testing, to include the model of the engine proposed for the evaluation. This test plan shall be delivered NLT 90 days after the effective date of Modification or as agreed upon with the COR (see CDRL A003).		
* C.3.2.1.5 The contractor shall continue to explore the frictional and heat transfer behavior of the developed baseline formulation and derived nanofluids for comparison and optimization.		
*C.3.2.1.5.1 The contractor shall evaluate the heat transfer capabilities of nanoparticles in coolants and stability when the nanoparticles are added to fully formulated coolants; ethylene or propylene glycols.		
*C.3.2.1.5.2 The contractor shall provide a report to identify the developed baseline formulation and derived nanofluids which are to be further studied and the reason the fluids were chosen. Additionally, the report shall document the methods or techniques to be used to continue to explore the frictional and heat transfer behaviors. A heat transfer model of the impact introduced by the nanoparticles shall be developed.		
*C.3.2.1.5.3 The contractor shall develop and provide results of the heat flow modeling of the impact introduced by the nanoparticles.		
* C.3.2.1.6 The contractor shall select three of the most promising Arctic-to-Desert Diesel Engine Oil Nanofluid Formulations and conduct engine performance testing in accordance with the test plan developed in C.3.2.1.2. A test plan and proposed engine test matrix shall be prepared		
* C.3.2.1.6.1 This test plan shall be delivered NLT 90 days after effective date of Modification P00001 (see 3.3.3) or as agreed upon with the COR (see CDRL A003). The contractor shall prepare and submit a test report identifying the three most promising nanofluid formulations and the results of the engine performance testing. The test report shall also include discussion of the tests results, and areas for improvement. The contractor shall also offer suggestions to achieve the desired improvements.		
* C.3.2.1.6.2. The contractor shall provide the results of the heat-flow modeling.		
C.3.2.1.7 Manufacturing. Contractor shall assess capabilities and requirements for full-scale production of a nanoparticle based lubricating oil, which shall include bulk manufacturing of the nanoparticle system. * Based on the previous assessment of capabilities and requirements for full-scale production, the contractor shall identify those areas that need to be developed or enhanced to allow full-scale production. The contractor shall describe what will be needed (process improvements, equipment procurement, manufacturing technique development, etc) in order to achieve full-scale production and a time-table, with appropriate milestones, expected for full-scale production.*		
C.3.2.2 Program Planning. The contractor shall provide program management, in accordance with the detail requirements below		
C.3.2.2.1 Program Management. The contractor shall establish and maintain management operations that shall include the following areas: (a)Program Planning and Control, (b)Subcontractor Control, (c)Financial Management,		

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- (d)Data Management,
- (e)Management and Accountability for Government Furnished Equipment, and
- (f)Risk Management

The contractor shall develop and implement a Management Program that clearly defines how the nanoparticle program will be conducted and controlled. A task matrix keyed to the Work Breakdown Structure (WBS) shall be developed in sufficient detail to identify Contractor and subcontractor responsibilities. The contractor shall develop a financial management system to document and report funding allocations spent by the contractor and all subcontractors.

C.3.3 Deliverables

C.3.3.1 The contractor shall provide monthly status reports (to include cost schedule) to the government technical POC.

C.3.3.2 The contractor shall provide NLT 90 days after contract award; or a date to be agreed upon with the COR:

C.3.3.2.1 an index of all previously evaluated nanoparticles and summary of findings(CDRL A002),

C.3.3.2.2 a list of the nanoparticles selected for this work and why they were chosen (CDRL A002),

C.3.3.2.3 an index of dispersion systems developed for the specific nanoparticles chosen in Section 3.2.1.1 (CDRL A002).

C.3.3.3 The contractor shall provide NLT 60 days prior to the beginning of testing, or at a time to be mutually agreed upon with the COR, a comprehensive test plan (CDRL A003). The Government shall have 30 days for review and comment. Final test plan shall be delivered NLT 15 days prior to start of testing. Test results shall be reported in a separate test report, due NLT 30 days after completion of testing.

*C.3.3.4 The contractor shall provide NLT 90 days after the effective date of this modification P00001; or a date to be agreed upon with the COR:

*C.3.3.4.1 a test plan to outline the methods to evaluate the stability of the nanofluid formulations (CDRL A003);

*C.3.3.4.2 a test plan for engine performance testing (CDRL A003); and

*C.3.3.4.3 a test plan and engine test matrix to evaluate the most promising Arctic-to-Desert Diesel Engine Oil Nanofluid Formulation (CDRL A003).

C.3.3.5 The contractor shall provide a 1-gallon sample of the finished fluid formulated with nanoparticles and 1 pint of the nanoparticle concentrate.

C.3.3.6 The contractor shall provide a final report (CDRL A004) identifying the most promising nanoparticles for reducing thermal conductivity and enhancing friction and wear properties.

*C.3.3.7 The contractor shall provide a 1-gallon sample of each of the Arctic-to-Desert Diesel Engine Oil Nanofluid Formulations.

*C.3.3.8 The contractor shall provide a report to identify the developed baseline formulation and derived nanofluids which are to be further studied and the reason the fluids were chosen.

*C.3.3.9 The contractor shall prepare and submit a test report (CDRL A005) identifying the three most promising nanofluid formulations and the results of the engine performance testing.

*C.3.3.10 The contractor shall develop and provide results of the heat flow modeling.

*C.3.3.11 The contractor shall provide a final report (CDRL A004) which shall include identification of the most promising Arctic-to-Desert Diesel Engine Oil Nanofluid Formulations for increasing thermal conductivity and enhancing friction and wear properties and the rationale supporting the choices as well as a summary of all efforts conducted.

C.3.4 Meetings

C.3.4.1. Kick-Off Meeting. The Contractor shall plan and conduct a one (1) day kick-off meeting at TARDEC within thirty (30) days of *initial* Contract award. The Contractor shall coordinate this meeting with the COR. At the meeting, the Contractor shall

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explain its intended approach for accomplishing the Contract SOW.

C.3.4.2. Semi-Annual Meetings. The Contractor shall plan and conduct status meetings (every 6 months) with the COR for status updates.

C.3.4.3. Final Demonstration. The Contractor shall plan and conduct a one day final report presentation and meeting before contract expiration. At this meeting, the Contractor shall report the results of the prototype development and testing as defined in the Contract SOW at TARDEC or at a location agreed to by the COR.

* Added/changed by Modification P00001

*** END OF NARRATIVE C0001 ***

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SECTION F - DELIVERIES OR PERFORMANCE

F.1 Period of Performance

F.1.1 All effort required under this contract, including delivery of the final technical report, shall be completed within twenty-four (24) months after contract award date.

F.2 Data Deliverables

F.2.1 Delivery of data set forth in the contract shall be in accordance with the Contract Data Requirements List, DD Form 1423.

F.3 Material / Hardware Deliverables

F.3.1 All materials / hardware, including the sample products, required to be delivered under the contract shall be delivered, *at the time of contract completion or at a time to be mutually agreed upon with the COR,* FOB Destination to the following address:

Commander
U.S. Army RDECOM-TARDEC
ATTN: Jill M. Tebbe
AMSRD-TAR-D/MS 110
6501 E. 11 Mile Road
Warren, MI 48397-5000

* Added/changed by Modification P00001

*** END OF NARRATIVE F0001 ***

SECTION G - CONTRACT ADMINISTRATION DATA

LINE	PRON/ AMS CD/ ITEM MIPR	OBLG STAT/ ACRN JOB ORD NO	PRIOR AMOUNT	INCREASE/DECREASE AMOUNT	CUMULATIVE AMOUNT
0001AB	R372C222R3 622601T2600	AB 2 72C222	0.00 \$	850,451.00 \$	850,451.00
			NET CHANGE \$	850,451.00	

SERVICE NAME	NET CHANGE BY ACRN	ACCOUNTING CLASSIFICATION	ACCOUNTING STATION	INCREASE/DECREASE AMOUNT
Army	AB	21 72040000076N6N7EP6226012512 S20113	W56HZV	\$ 850,451.00
NET CHANGE				\$ 850,451.00

PRIOR AMOUNT OF AWARD	INCREASE/DECREASE AMOUNT	CUMULATIVE OBLIG AMT
NET CHANGE FOR AWARD: \$ 833,543.00	\$ 850,451.00	\$ 1,683,994.00

ACRN	EDI ACCOUNTING CLASSIFICATION
AB	21 070820400000 S20113 76N6N7E622601T26002512 72C222S20113 W56HZV

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Name of Offeror or Contractor: ASHLAND INC			

SECTION J - LIST OF ATTACHMENTS

List of Addenda	Title	Date	Number of Pages	Transmitted By
Exhibit A	CONTRACT DATA REQUIREMENTS LIST (CDRL) DD 1423			

CONTRACT DATA REQUIREMENT LIST

Form Approval OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 440 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO.:
B. EXHIBIT : A
C. CATEGORY.....:
D. SYSTEM/ITEM.....: Research & Development - Nanofluids
E. CONTRACT/PR NO.:W56HZV-07-C-0211
F. CONTRACTOR.....:Valvoline, Inc

1. DATA ITEM NO.: A001
2. TITLE OF DATA ITEM : Contractor's Progress Status and Management Report
3. SUBTITLE:
4. AUTHORITY: DI-MGMT-80227(T) (see 16a. below)
5. CONTRACT REFERENCE: C.3.3.1
6. REQUIRING OFFICE .: AMSRD-TAR-D / MS 110 9. DIST. STATEMENT REQUIRED: 12. DATE OF FIRST SUB: 60 DAC
7. DD250 REQ: LT 10. FREQUENCY : Monthly 13. DATE OF SUBS. SUB:
8. APP CODE: N/A 11. AS OF DATE:

14. DISTRIBUTION ADDRESSEES: SUBMIT REPORTS ELECTRONICALLY TO THE E-MAIL ADDRESSES SHOWN IMMEDIATELY BELOW:

JILL M. TEBBE, CONTRACTING OFFICER'S REPRESENTATIVE, E-MAIL: tebbej@TACOM.ARMY.MIL
DAVID E. MCCRIGHT, CONTRACT SPECIALIST, E-MAIL: mccrighd@TACOM.ARMY..MIL
ADMINISTRATIVE CONTRACTING OFFICER: DCMA-Dayton, DCMAA-ACOB E-MAIL: TBD
15. TOTAL:

16. REMARKS:

a. DI-MGMT-80227 is tailored by deleting 10.2, 10.3(j) 10.3(k), and 10.3(l).
17. PRICE GROUP: 18. ESTIMATED TOTAL PRICE:

1. DATA ITEM NO. A002
2. TITLE OF DATA ITEM: Index and Summary
3. SUBTITLE:
4. AUTHORITY: 5. CONTRACT REFERENCE:* C.3.2.1.1.1, 3.2.1.1.2, 3.2.1.2.1, 3.3.2.1, 3.3.2.2, 3.3.2.3 *
6. REQUIRING OFFICE: AMSTA-TR-D/MS 110
7. DD 250 REQ: LT 8. APP CODE: 9. DIST. STATEMENT REQUIRED:
10. FREQUENCY: 11. AS OF DATE:
12. DATE OF FIRST SUBMISSION: SEE BLK 16 13. DATE OF SUBS. SEE BLK 16
14. DISTRIBUTION/ A. ADDRESSEE B. COPIES DRAFT / FINAL
JILL M. TEBBE, CONTRACTING OFFICER'S REPRESENTATIVE, 1 / 1
15. TOTAL: 1 / 1

16. REMARKS 90 days after contract award provide, in contractor format, an index of all previously evaluated nanoparticles and summary of findings, a list of the nanoparticles selected for this work and why they were chosen, an index of dispersion systems developed for the specific nanoparticles chosen

1. DATA ITEM NO. A003
2. TITLE OF DATA ITEM: Test Plan
3. SUBTITLE:
4. AUTHORITY: DI-NDTI-80566 5. CONTRACT REFERENCE:* C.3.2.1.3.2, C.3.2.1.4.2, C>3.2.1.6.1, C.3.3.4*
6. REQUIRING OFFICE: AMSTA-TR-D/MS110
7. DD 250 REQ: LT 8. APP CODE: 9. DIST. STATEMENT REQUIRED:
10. FREQUENCY: ASREQ 11. AS OF DATE:

12. DATE OF FIRST SUBMISSION: SEE BLK 16 13. DATE OF SUBS. SEE BLK 16
14. DISTRIBUTION/ A. ADDRESSEE B. COPIES DRAFT / FINAL
JILL M. TEBBE, CONTRACTING OFFICER'S REPRESENTATIVE, 1 / 1
15. TOTAL: 1 / 1
16. REMARKS The Test Plan shall be electronically delivered (email or CD) in an editable and printable digital format.
Draft Test Plan delivered 60 days prior to Test and Demonstration *or as directed in Section C*; Government to review and provide
comments 30 days after receipt of draft. FINAL Test Plan delivered 15 days after receipt of Government comment

1. DATA ITEM NO.: A004
2. TITLE OF DATA ITEM : SCIENTIFIC AND TECHNICAL REPORT
3. SUBTITLE: DRAFT/FINAL TECHNICAL REPORT

4. AUTHORITY: DI-MISC-80711A(T) (see 16a. below)
5. CONTRACT REFERENCE: *C.3.3.6, C.3.4.3*
6. REQUIRING OFFICE .: AMSRD-TAR-D / MS 110 9. DIST. STATEMENT REQUIRED: 12. DATE OF FIRST SUB: SEE ITEM 16
7. DD250 REQ: DD 10. FREQUENCY : SEE ITEM 16 13. DATE OF SUBS. SUB: SEE ITEM 16
8. APP CODE: A 11. AS OF DATE:

14. DISTRIBUTION ADDRESSEES: SUBMIT REPORTS ELECTRONICALLY TO THE E-MAIL ADDRESSES SHOWN IMMEDIATELY BELOW:
DRAFT/FINAL

JILL M. TEBBE, CONTRACTING OFFICER'S REPRESENTATIVE, E-MAIL: tebbej@TACOM.ARMY.MIL 1/1
DAVID E. MCCRIGHT, CONTRACT SPECIALIST, E-MAIL: mccrighd@TACOM.ARMY..MIL 0/1
ADMINISTRATIVE CONTRACTING OFFICER: DCMA-Dayton, DCMAA-ACOB E-MAIL: TBD 0/1
15. TOTAL:

16. REMARKS:

a. DI-MISC-80711A is tailored by deleting 10.2.

b. The Draft of the Final Technical Report (C.2.2) shall be delivered 22 months after date of contract award. The Government will
review and respond within 30 days of receipt. The contractor shall submit the Final Technical Report within 30 days after receipt of
draft comments/approval.

17. PRICE GROUP: 18. ESTIMATED TOTAL PRICE:

*1. DATA ITEM NO. A005
2. TITLE OF DATA ITEM: Test Report
3. SUBTITLE:
4. AUTHORITY: MIL-HDBK-831 5. CONTRACT REFERENCE: *C.3.2.1.6.2, C.3.2.1.6.3, C.3.3.8, C.3.3.9, C.3.3.10*
6. REQUIRING OFFICE: AMSTA-TR-D/MS110
7. DD 250 REQ: LT 8. APP CODE: 9. DIST. STATEMENT REQUIRED:
10. FREQUENCY: ASREQ 11. AS OF DATE:
12. DATE OF FIRST SUBMISSION: SEE BLK 16 13. DATE OF SUBS. SEE BLK 16
14. DISTRIBUTION/ A. ADDRESSEE B. COPIES DRAFT / FINAL
JILL M. TEBBE, CONTRACTING OFFICER'S REPRESENTATIVE, 1 / 1
15. TOTAL: 1 / 1
16. REMARKS The Test Report shall be electronically delivered (email or CD) in an editable and printable digital format.
Draft Test Report delivered 60 days after Test and Demonstration; Government to review and provide comments 30 days after receipt of
draft. FINAL Test Plan delivered 15 days after receipt of Government comments.

* Added by Modification P00001

Prepare the reports in Contractor format. Submit the reports using any of the following electronic formats:

(1) Files readable using these Microsoft* Office XP or Microsoft* Office 2002 & lower Products: Word, Excel, PowerPoint, or Access. Spreadsheets must be sent in a file format that includes all formulae, macro and format information. Print or scan images of spreadsheets are not acceptable. Please see security note below for caution regarding use of macros.

(2) Files in Adobe PDF (Portable Document Format). When scanning documents, scanner should be set to 200 dots per inch.

(3) Files in HTML (Hypertext Markup Language) Format. HTML documents must not contain active links to Internet websites or web pages for reference information. All linked information must be contained within your electronic report, and be accessible offline.

(4) Other electronic formats. Before preparing your report in any other electronic format, please e-mail the COR, with an e-mail copy-furnished to amsta-idg@tacom.army.mil, to obtain a decision as to the format's acceptability. This e-mail must be received by the COR not later than ten (10) calendar days before the draft report's due date. All alternate methods must be at no cost to the Government.

(5) Please note that we can no longer accept .zip files due to increasing security concerns.

NOTE. Macros: The virus scanning software used by our e-mail systems cannot always distinguish a macro from a virus. Therefore, sending a macro embedded in an e-mail message or an e-mail attachment may cause the e-mail report to be quarantined.

d. Acceptable media: The Contractor shall submit reports via e-mail. If e-mail is not workable, another acceptable media is a 650 megabyte CD ROM. Identify the software application and version used to create each file submitted.

(1) E-MAIL. Maximum size of each e-mail message shall be three and one-half (3.5) megabytes. Previously "zipped" files were accepted, but due to security concerns these zipped attachments cannot be received through our mail system. You may use multiple e-mail messages if necessary, however, you must annotate the subject lines in this manner: "Message 1 of 3, 2 of 3, 3 of 3."

(2) 650 MEGABYTE CD ROM to be delivered via U.S. Mail or other carrier. The Contractor shall label all submitted disks with the Contract number, the Contractor's name and address, and a contact's phone number. Exterior mailing envelopes containing disks must be addressed to the following address:

U.S. Army TACOM Life Cycle Management Command (TACOM LCMC)
Attn: Jill M. Tebbe
AMSRD-TAR-D/ MS 110
6501 East 11 Mile Road
Warren, MI 48397-5000

NOTE: Please select only one type of electronic media to transmit each report. For instance, do not submit a report via e-mail and CD-ROM.

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